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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/074,752	02/13/2002	Kieth G. Spitler	Mo6806/MD-99-39B-PU	9963
157	7590	08/04/2005	EXAMINER	
BAYER MATERIAL SCIENCE LLC 100 BAYER ROAD PITTSBURGH, PA 15205				COONEY, JOHN M
ART UNIT		PAPER NUMBER		
1711				

DATE MAILED: 08/04/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>
	10/074,752	SPITLER ET AL.
	<b>Examiner</b>	<b>Art Unit</b>
	John m. Cooney	1711

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

1) Responsive to communication(s) filed on 31 May 2005.

2a) This action is **FINAL**.                            2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

4) Claim(s) 1 and 4-10 is/are pending in the application.

4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

5) Claim(s) \_\_\_\_\_ is/are allowed.

6) Claim(s) 1 and 4-10 is/are rejected.

7) Claim(s) \_\_\_\_\_ is/are objected to.

8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) All    b) Some \* c) None of:

1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

1) Notice of References Cited (PTO-892)

2) Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_

4) Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_

5) Notice of Informal Patent Application (PTO-152)

6) Other: \_\_\_\_\_

Applicant's arguments filed 5-31-05 have been fully considered but they are not persuasive.

Rejection of claims 1 and 4-9 are withdrawn in light of applicants' amendments. However, the following new grounds of rejection are set forth below in light of applicants' amendments.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Cioca et al.(4,380,474) in view of Markusch et al.(3,965,051).

Cioca et al. discloses preparations of polyurea composites prepared from isocyanates having NCO group contents and functionalities as claimed, water, and additive materials under heated molding/shaping conditions which read on the work-up conditions claimed (see column 2 line 11 – column 4 line 32, the examples, as well as, the entire document). Though the specifics of viscosities of isocyanates are not referred

to by Cioca et al., such is not seen to be an element of distinction because owing to the overall similarities between the described features disclosed this additional element is seen to be inherent to Cioca et al.'s disclosure.

Cioca et al. does differ from the claims in that it does not specifically recite hollow spheres as a potential additive. However, Markusch et al.('051)(see column 9 lines 19-60, as well as, the entire document) discloses the interchangeable usage of inorganic beads and wood chips/dust in the making of closely related isocyanate-based article formations. Accordingly, it would have been obvious for one having ordinary skill in the art to have interchangeably employed the inorganic beads of Markusch et al. in place of the wood flakes/dust of Cioca et al. as motivated by the reasonable expectation that they will behave comparably in order to arrive at the products and processes of applicants' claims with the expectation of success in the absence of a showing of new or unexpected results. It is *prima facie* obvious to substitute equivalents, motivated by the reasonable expectation that the respective species will behave in a comparable manner or give comparable results in comparable circumstances. *In re Ruff* 118 USPQ 343; *In re Jezel* 158 USPQ 99; the express suggestion to substitute one equivalent for another need not be present to render the substitution obvious. *In re Font*, 213 USPQ 532.

The following relates to the claim's recitation of the transitional phrase "consisting essentially of" in the claims.

The following is taken from MPEP 2111.03:

The transitional phrase "consisting essentially of" limits the scope of a claim to the specified materials or steps "and those that do not materially affect the basic and novel characteristic(s)" of the claimed invention. *In re Herz*, 537 F.2d 549, 551-52, 190 USPQ 461, 463 (CCPA 1976) (emphasis in original) (Prior art hydraulic fluid required a dispersant which appellants argued was excluded from claims limited to a functional fluid "consisting essentially of" certain components. In finding the claims did not exclude the prior art dispersant, the court noted that appellants' specification indicated the claimed composition can contain any well-known additive such as a dispersant, and there was no evidence that the presence of a dispersant would materially affect the basic and novel characteristic of the claimed invention. The prior art composition had the same basic and novel characteristic (increased oxidation resistance) as well as additional enhanced detergent and dispersant characteristics.). "A consisting essentially of claim occupies a middle ground between closed claims that are written in a consisting of format and fully open claims that are drafted in a comprising' format." *PPG Industries v. Guardian Industries*, 156 F.3d 1351, 1354, 48 USPQ2d 1351, 1353-54 (Fed. Cir. 1998). See also *Atlas Powder v. E.I. duPont de Nemours & Co.*, 750 F.2d 1569, 224 USPQ 409 (Fed. Cir. 1984); *In re Janakirama-Rao*, 317 F.2d 951, 137 USPQ 893 (CCPA 1963); *Water Technologies Corp. vs. Calco, Ltd.*, 850 F.2d 660, 7 USPQ2d 1097 (Fed. Cir. 1988). For the purposes of searching for and applying prior art under 35 U.S.C. 102 and 103, absent a clear indication in the specification or claims of what the basic and novel characteristics actually are, "consisting essentially of" will be construed as equivalent to "comprising." See, e.g., *PPG*, 156 F.3d at 1355, 48 USPQ2d at 1355 ("PPG could have defined the scope of the phrase consisting essentially of for purposes of its patent by making clear in its specification what it regarded as constituting a material change in the basic and novel characteristics of the invention."). See also *AK Steel Corp. v. Sollac*, 344 F.3d 1234, 1240-41, 68 USPQ2d 1280, 1283-84 (Fed. Cir. 2003) (Applicant's statement in the specification that "silicon contents in the coating metal should not exceed about 0.5% by weight" along with a discussion of the deleterious effects of silicon provided basis to conclude that silicon in excess of 0.5% by weight would materially alter the basic and novel properties of the invention. Thus, "consisting essentially of" as recited in the preamble was interpreted to permit no more than 0.5% by weight of silicon in the aluminum coating.); < *In re Janakirama-Rao*, 317 F.2d 951, 954, 137 USPQ 893, 895-96 (CCPA 1963). If an applicant contends that additional steps or materials in the prior art are excluded by the recitation of "consisting essentially of," applicant has the burden of showing that the introduction of additional steps or components would materially change the characteristics of applicant's invention. *In re De Lajarte*, 337 F.2d 870, 143 USPQ 256 (CCPA 1964). See also *Ex parte Hoffman*, 12 USPQ2d 1061, 1063-64 (Bd.

Pat. App. & Inter. 1989) ("Although consisting essentially of is typically used and defined in the context of compositions of matter, we find nothing intrinsically wrong with the use of such language as a modifier of method steps. . . [rendering] the claim open only for the inclusion of steps which do not materially affect the basic and novel characteristics of the claimed method. To determine the steps included versus excluded the claim must be

read in light of the specification. . . . [I]t is an applicant's burden to establish that a step practiced in a prior art method is excluded from his claims by consisting essentially of language.").

Additionally it is maintained as set forth in the previous Office action:

Applicants' arguments have been considered regarding the language "consisting essentially". However, for purposes of considering prior art, as indicated in the citation set forth above, the instant employment of the terminology "consisting essentially" has been treated as "comprising". Further, regarding the first use of "consisting essentially", applicants have not provided any evidence supported by the instant disclosure which establishes additional method operations which would materially affect the basic and novel characteristics of the claimed methods. Regarding the second employment of "consisting essentially", this limitation is only defining of component (A), and the entire scope of the claim is open to inclusion of other elements beyond those recited by the claims. Here, again, it is reiterated that applicants' supporting disclosure does not establish additional elements which would materially affect the basic and novel characteristics of the claimed invention, and the factual record has not established, to the degree required, that elements from the combination of references set forth above would materially affect the basic and novel characteristics of the claimed invention.

Further, regarding applicants' arguments pertaining to the employment of additives and presence of chrome shavings in the prior art, examiner maintains that the combination of references as indicated above is proper. Cioca et al. indicates that "sawdust, woodchips and the like" may be added if desired" (see again column 3 lines 57-58). Markusch et al. discloses that they are interchangeably useful for their additive effects (see again, for example, column 9 lines 56-57, and the entire teaching). The substitution alleged to have been obvious in the above rejection is that of sawdust/woodchips with inorganic hollow beads rather than the substitution of chrome shavings with inorganic hollow beads. The *prima facie* case of obviousness, as set

forth above, is maintained to be proper, and a showing of new or unexpected results commensurate in scope with the scope of the claims has not been demonstrated.

The following argument was set forth in the Final rejection of 8-18-04 and is seen to still apply:

Cioca et al. indicates the utilization of water for reaction with isocyanate, and that water is provided for through the leather scrap employed, water added as in example 3, and ambient moisture in the air. Examiner maintains water to be provided for to the degree necessary to meet this limitation in the claims.

Applicants' arguments in the reply of 5-31-05 are all directed towards amendments made in claims 1 and 4-9 which are not reflected in the recitations currently in the language of claim 10. Accordingly, these latest arguments are not persuasive of patentability for claim 10.

Claims 1 and 4-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Spitzer et al.(6,166,109), alone, or in view of Schubert et al.(4,724,250).

Spitzer et al. disclose the preparation of composite articles prepared by the reaction of isocyanate and water in the presence of glass microspheres ( see column 3 line 47 – column 6 line 7, as well as, the entire document). Claims are not seen to distinguish over the cited Spitzer et al. patent based on the additional elements recited by Spitzer et al.'s disclosure (see column 4 line 40 – column 5 line 56) because these elements are indicated as being optional embodiments by the language which sets them forth.

Spitler et al. does differ from the claims in that it does not recite isocyanates as specifically recited by all of applicants' claims. However, Spitler et al. does recite variation and modification of their preferably selected aromatic polyisocyanates for the purpose of achieving acceptable results. Accordingly, it would have been obvious for one having ordinary skill in the art to have employed isocyanates selected from the variously disclosed aromatic isocyanates of Spitler et al. within the teachings of Spitler et al. for the purpose of serving their isocyanate functional effect in order to arrive at the products and processes of applicants' claims with the expectation of success in the absence of a showing of new or unexpected results. Though the specific viscosities of applicants' claims are not particularly recited by the disclosure of Spitler et al., such properties are seen to be qualities which are associated with the selection of isocyanate material addressed above.

Spitler et al. further differs from the claims in that it does not particularly recite the heating operations for curing the products of their invention. However, Schubert et al. does recite the employment of heating in related preparations for the purpose of facilitating the curing reaction of isocyanate and water (see column 9 lines 1-20). Accordingly, it would have been obvious for one having ordinary skill in the art to have employed heating as taught by Schubert et al. in the curing/reactive operations of Spitler et al. for the purpose of speeding the reactive effects involved in order to arrive at the products and processes of applicants' claims with the expectation of success in the absence of a showing of new or unexpected results.

The following is set forth in order to specifically address the product claim 9:

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim 9 is rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Spitzer et al.(6,166,109).

Spitzer et al. disclose the preparation of composite articles prepared by the reaction of isocyanate and water in the presence of glass microspheres ( see column 3 line 47 – column 6 line 7, as well as, the entire document). Claims are not seen to distinguish over the cited Spitzer et al. patent based on the additional elements recited by Spitzer et al.'s disclosure (see column 4 line 40 – column 5 line 56) because these elements are indicated as being optional embodiments by the language which sets them forth.

When the prior art discloses a product which reasonably appears to be either identical with or only slightly different than a product claimed in a product-by-process claim it is appropriate for the examiner to make a rejection under both the applicable section of 35 USC 102 and 35 USC 103 such that burden is placed upon applicant to provide clear and convincing factual evidence that the respective products do in fact differ in kind – *In re Brown*, 59 CCPA 1063, 173 USPQ 685 (1972); *In re Fessman*, 180

USPQ 324 (CCPA) – and to come forward with evidence establishing unobvious differences between the claimed product and the prior art product. In re Marosi 218 USPQ 290. Distinction of the product based on the limitations as recited has not been demonstrated.

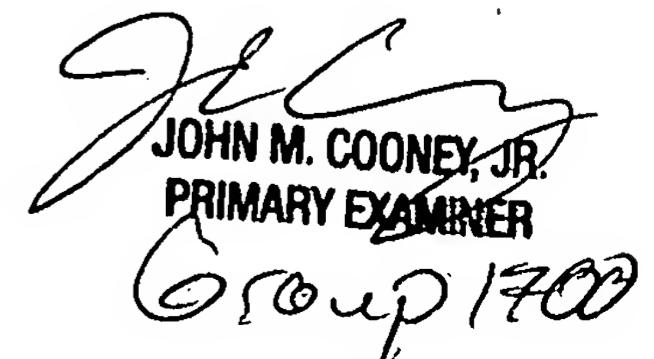
Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John Cooney whose telephone number is 571-272-1070. The examiner can normally be reached on M-F from 9 to 6.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Seidleck, can be reached on 571-272-1078. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
JOHN M. COONEY, JR.  
PRIMARY EXAMINER  
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